

American Polywater's

P7™

Multipurpose Oil

A Multipurpose Penetrating Oil for Industrial and Electrical Use

Description

P7™ Multipurpose Oil is suitable for all kinds of electrical and industrial uses. P7™ Oil cleans dirt and grime, loosens rust and scale, and penetrates frozen parts. Use it to maintain and lubricate equipment.

P7™ Multipurpose Oil is multi-functional. It cleans, penetrates, and lubricates to extend equipment life. P7™ Oil also acts as a moisture displacer and corrosion inhibitor. It drives out moisture and dries wet connections, leaving a protective film which is non-conductive.

Advantages

- Lubricates Moving Parts
- Frees Stuck Parts
- Protects Against Rust and Corrosion
- Displaces Moisture
- Removes Grime and Rust
- Film is Non-Conductive
- Harmless to Most Plastics
- Safe on Metal, Paint, & Rubber
- Contains No CFC's or Chlorinated Solvents
- Silicone-Free
- Cleans Tar, Grease, Rust, and Adhesives

Properties

Flashpoint (ASTM D93)	100°F/38°C
Initial Boiling Point	245°F/118°C
Specific Gravity	0.69
Dielectric Strength (ASTM D877)	13 KV
Relative Evaporation Rate	Fast
Propellant	Hydrocarbon
USDA	Approved



P7™ Multipurpose Oil Aerosol (cat. # P7-12) penetrates into tight spots and frees stuck parts.

Penetration and Cleaning

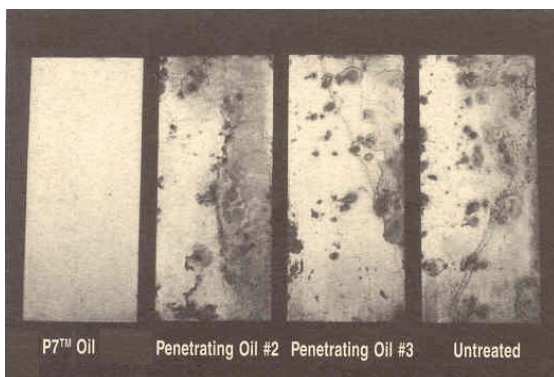
P7™ Multipurpose Oil cleans grease and tars and removes adhesives and rust. Other solvent cleaners are not necessary. P7™ Oil dissolves grit and grime contaminants, leaving behind a fine protective film.

P7™ Multipurpose Oil has a low surface tension, which allows it to spread into a very fine film. One 12-ounce can of P7™ Oil will cover approximately 300 square feet of surface. This low surface tension allows P7™ Oil to "creep" up surfaces against gravity. It will penetrate and coat 16mm of a threaded bolt in 15 minutes. P7™ Multipurpose Oil will lubricate tight crevices and loosen frozen parts.

Protection and Corrosion Prevention

P7™ Multipurpose Oil offers superior corrosion protection by leaving a non-conductive film. This long-lasting film increases service life.

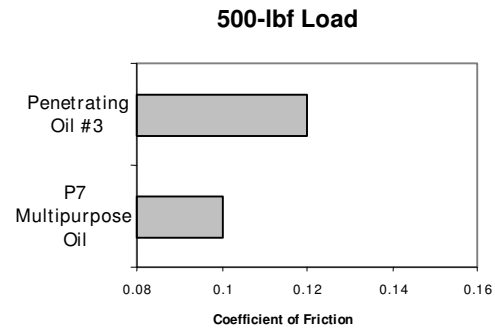
The photo below shows the results of a three-week outdoor weathering test run on low carbon steel. The plates were sanded, cleaned, and saturated with various penetrating oils. The steel plates were left in the elements, untouched for three weeks. P7™ acts as a tough, protective barrier; the steel plate has no rusting or mottling at the conclusion of the test.



Lubrication

P7™ Multipurpose Oil is an exceptional lubricant. The coefficient of friction can be determined using the Falex Pin and Vee Block Test Machine (ASTM D3233A). Load is applied to two V-blocks which

press against a rotating steel journal immersed in the oil. The coefficient of friction value is derived from the torque measurement on the pin. The more the penetrating oil lubricates and lowers the torque, the lower the resulting coefficient of friction. Results documented in the following chart show that P7™ has a significantly lower coefficient of friction than another commonly used multipurpose oil.



Extreme pressure testing using the Pin and Vee Block Test Machine confirms P7™ Oil's excellent performance under high loads. The test will run to a load force of over 1,000 pounds before failure.

Water Displacement

P7™ Multipurpose Oil displaces moisture and dries out ignitions. It creeps under water and ice, dissolving and carrying away these contaminants. A non-conductive, protective film is left behind. P7™ Oil displaces water according to the procedure described in Mil-Spec C-16173E. No rusting or mottling was observed on the treated surface.

Compatibility

P7™ Multipurpose Oil is compatible with most plastics and elastomers. Tables I and II show the effect of P7™ Oil on various plastics and rubbers.

Testing is based on a soak test described in ASTM D 543. P7™ Oil will temporarily affect some rubber compounds. These rubbers may swell, but should return to their original state after the solvent carrier has dried. Immersion will affect sensitive materials more than incidental contact of a spray and wipe. It is recommended that all plastic parts, gaskets, seals and O-rings be tested for specific use and exposure method.

P7™ Compatibility with Plastics and Elastomers

TABLE I

PLASTICS	AGING 72 HOURS AT 50°C		
	% WEIGHT CHANGE	% THICKNESS CHANGE	APPEARANCE
ABS	+0.04	+0.79	NC
Acrylic	-0.02	-0.04	NC
CPE Thermoplastic	+16.10	+4.27	NC
CPE Thermoset	+22.12	+20.99	SS
Delrin®	+0.17	+0.25	NC
Epoxy	-0.05	0	NC
Nylon 101	-0.08	-1.57	NC
Polycarbonate	-0.03	-0.59	NC
Phenolic	+1.24	0	NC
Polyethylene	+14.19	+5.44	NC
Polystyrene	+13.85	-3.64	SF
PVC	+0.06	0	NC
Teflon®	+0.07	-0.25	NC
Tygon®	+4.95	0	NC
Ultem® 1000	-0.08	-0.27	NC
Valox® 420	+0.03	-1.11	NC

TABLE II

ELASTOMERS	AGING 72 HOURS AT 50°C		
	% WEIGHT CHANGE	% THICKNESS CHANGE	APPEARANCE
EPDM	+149.56	+43.77	S
Neoprene	+26.64	+9.79	SS
Nitrile	+1.06	0	NC
SBR	+52.48	14.36	S
Silicone	+48.04	+17.87	S
Viton®	+0.56	+0.26	NC

KEY:

NC=NO CHANGE
SS=SLIGHT SWELLING

SF=SOFTENING
S=SWELLING

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Delrin®, Teflon®, and Viton® are trademarks of Du Pont
Ultem® 1000 and Valox® 420 are trademarks of G.E. Plastics
Tygon® is a trademark of Norton Performance Plastics*

Usage Directions

Position nozzle 6 to 8 inches (15-20 cms) from surface and spray with light even strokes. Use extension tube for difficult to reach areas. Let P7™ Oil soak for several minutes to loosen rusted parts. Allow 4 to 6 hours to fully dry. P7™ Multipurpose Oil leaves a non-conductive, protective film.

Safety

P7™ Multipurpose Oil has a low level of toxicity. Avoid breathing spray, mist, or vapor. As with any solvent, ventilation should be sufficient to keep vapors at safe levels.

P7™ Multipurpose Oil is combustible. Do not expose to fire or flame. Good industrial hygiene practice and appropriate precautions should be employed during use.

Storage

P7™ Multipurpose Oil is classified as combustible. Keep containers cool, dry and away from sources of ignition and oxidizing materials. Do not expose aerosol cans to direct sunlight or temperatures above 120°F (50°C). Do not puncture or incinerate aerosol cans. Aerosol cans are freeze/thaw stable. This product has a shelf life of three years.

Package Options

Catalog No.	Description
P7-12	12-wt. oz. aerosol can in 16 oz can

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Important Notice: The statements here are made in good faith based on tests and observations we believe to be reliable. However, the completeness and accuracy of the information is not guaranteed. Before using, the end-user should conduct whatever evaluations are necessary to determine that the product is suitable for the intended use.

American Polywater expressly disclaims any implied warranties and conditions of merchantability and fitness for a particular purpose. American Polywater's only obligation shall be to replace such quantity of the product proven to be defective. Except for the replacement remedy, American Polywater shall not be liable for any loss, injury, or direct, indirect, or consequential damages resulting from product's use, regardless of the legal theory asserted.

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